

| Question | Answer                                 | Mark |
|----------|--|------|
| 4.a      | Concave mirror                         | 1    |
| 4.b      | The image formed is larger than object | 1    |
| 4.c.i    |  | 3    |
| 4.c.ii   | Virtual / Upright / Magnified          | 1    |
| 4.d      | increases                              | 1    |
| Total    |  | 7    |

| Question | Answer   | Mark |
|----------|--|------|
| 5.a      | Elastic potential energy   | 1    |
| 5.b.i    | thickness of the Spring P < Q //                                 | 1    |
| 5.b.ii   | same   | 1    |
| 5.b.iii  | horizontal distance in Diagram 5.1 is shorter                    | 1    |
| 5.b.iv   | spring constant of Spring B is less                              | 1    |
| 5.c.i    | thickness of the spring increases, the spring constant increases | 1    |
| 5.c.ii   | the spring constant increases, the horizontal distance increases | 1    |
| 5.d      | Decreases  | 1    |
| Total    |  | 8    |

| Question | Answer   | Mark |
|----------|--|------|
| 6.a      | Diode  | 1    |
| 6.b.i    | The capacitance of the capacitor in Diagram 6.3 is higher                        | 1    |
| 6.b.ii   | The smoothness of wave pattern in Diagram 6.3 is higher                          | 1    |
| 6.b.iii  | The magnitude of peak voltage, $V_P$ same  | 1    |
| 6.b.iv   | capacitance of the capacitor increases, the smoothness of wave pattern increases | 1    |
| 6.c      | Full-wave rectification  | 1    |
| 6.d      | M1 Capacitor is charged when the current flow                                    | 1    |
|          | M2 Capacitor is discharged when there is no current flow                         | 1    |
| Total    |  | 6    |